

Applicant: Heinrich Bollmann

Serial No.: 09/456,371

Group Art Unit: 1783

IN THE CLAIMS:

The following is a complete listing of the claims indicating their present status and amendments made thereto.

1-18. (Cancelled)

19. (Currently Amended) A motor vehicle composite damping element received in a transverse link, a longitudinal link, a triangular link, a rear-axle subframe, a stabilizer, a spring-strut support, or a shock-absorber of a motor vehicle, said composite damping element comprising:

i) a ~~rigid~~ thermoplastic polyurethane molding having a thickness of from 2 to 12 ~~40~~ mm, and

ii) a flexible microcellular polyurethane elastomer ~~layer~~ chemically bonded to and in direct contact with at least one surface of said ~~rigid~~ thermoplastic polyurethane molding, ~~such~~ ~~that~~

said chemical bond between said microcellular polyurethane elastomer and said thermoplastic polyurethane molding having an ultimate tensile strength sufficient for said composite damping replacing rubber-metal composites, and

wherein said microcellular polyurethane elastomer ~~layer~~ dampens and absorbs vibrations of the transverse link, the longitudinal link, the triangular link, the rear-axle subframe, the stabilizer, the spring-strut support, or the shock-absorber while supported by said ~~rigid~~ thermoplastic polyurethane molding.

Applicant: Heinrich Bollmann

Serial No.: 09/456,371

Group Art Unit: 1783

20. (Previously Presented) The composite element of Claim 19 wherein said elastomer has a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8 N/mm², an elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance to DIN 53515 of from 8 to 30 N/mm, and a rebound resilience to DIN 53512 of from 50 to 60%.

21. (Cancelled)

22. (Previously Presented) The composite element of Claim 19 wherein said elastomer layer is bonded to an inner surface of said molding.

23. (Previously Presented) The composite element of Claim 19 wherein said elastomer layer is bonded to an outer surface of said molding.

24-29. (Cancelled).

30. (Previously presented) The composite element of Claim 19 wherein said thermoplastic polyurethane molding is formed from isocyanates and isocyanate reactive components in a ratio of isocyanate groups to isocyanate reactive groups of greater than 1.06:1 such that said excess isocyanate groups are available for chemically bonding with said microcellular polyurethane elastomer layer.

31. (New) The composite element of Claim 19 wherein said ultimate tensile strength is from 1 to 2 N/mm².

32. (New) The composite element of Claim 31 wherein said ultimate tensile strength is further defined as from 1.07 to 1.52 N/mm².

Applicant: Heinrich Bollmann

Serial No.: 09/456,371

Group Art Unit: 1783

33. (New) A composite damping element comprising:

- i) a support member formed from a thermoplastic polyurethane molding having excess isocyanates groups, said molding formed from a) isocyanates and b) compounds reactive to isocyanates in a ratio of greater than 1.06:1, and said support member having a thickness of from 2 to 12 mm;
- ii) a flexible bearing member formed from microcellular polyurethane elastomer, said elastomer formed from a) isocyanates and b) compounds reactive to isocyanates in a ratio of 0.8:1 to 1.2:1 and in the presence of blowing agents; said flexible bearing member chemically bonded to said support member, said chemical bond exhibiting an ultimate tensile strength from 1.07 to 1.52 N/mm² without adhesion promoters; and

said composite damping element having improved dampening and vibration absorption as a result of said chemical bond securing said flexible bearing member to said support member.

34. (New) The composite damping element of Claim 33 wherein said elastomer has a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8 N/mm², an elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance to DIN 53515 of from 8 to 30 N/mm, and a rebound resilience to DIN 53512 of from 50 to 60%.

35. (New) The composite damping element of Claim 34 wherein said ratio of said a) isocyanates and b) compounds reactive to isocyanates in said molding is from 1.1:1 to 1.2:1.